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DESCRIPTIVE CATALOGUE
OF
VEGETABLES
FOR
QUICK FREEZING



Associated Seed Growers, Inc.

New Haven, Connecticut

Number Seven

Associated Seed Growers, Inc.

Breeders and Growers
New Haven, Connecticut

Consolidating

THE EVERETT B. CLARK SEED CO.,	Est. 1857
N. B. KEENEY & SON, INC.,	Est. 1860
JOHN H. ALLAN SEED CO.,	Est. 1856

Cable Address: Asgrow

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Foreword

SINCE the first catalogue of vegetables for quick freezing was issued by us two years ago, much progress has been made in the new industry both at home and abroad. Quick freezing of foods is now well past the trial stage and has become established as an important means of bringing the choicest products of farm and field to our tables.

Much further experience has been gained in recent seasons as to the behavior of different varieties under the processes associated with quick freezing, and there are consequent changes in this catalog as compared with the previous edition. Only by repeated trial can the physiological changes of varieties be determined. Our listing is therefore narrower in some places; in others it has been expanded to include new varieties we have developed especially for quick freezing.

Good progress is being made in this regard, through the work continually carried on by our Research and Breeding Department at the Asgrow grounds in different parts of the country, under fully qualified men. From time to time we expect to be able to announce additional developments thus achieved.

Many problems still remain to be solved in connection with the adaptation of vegetables to quick freezing, but the care and determination which have already accomplished so much will undoubtedly attain to their solution.

Associated Seed Growers, Inc.

New Haven, Conn.

January 16, 1939.

VEGETABLE VARIETIES

Suitable for Quick Freezing

It should be noted that the descriptions given throughout this catalogue apply particularly to Asgrow strains. Our stocks of many older varieties have been greatly improved through continual work on our breeding grounds.

ASPARAGUS

A profitable vegetable for the frozen pack because of its short season in the fresh market, but year around popularity with consequent high prices. Should be processed as soon as possible after cutting.

Culture: Sow the seed in the spring in drills about 18 inches apart in light, rich soil. Place seeds one inch apart and cultivate regularly during the summer; plants will be ready to set in the field the following spring. One ounce of seed will produce 700 plants. Deep plowed soil, rich in humus and well drained is best for this crop. Plants should be set 4 to 5 inches deep, spaced 1 foot, in rows 4 feet apart.

MARTHA WASHINGTON

The original rust resistant variety; heavy yielding, with large dark green stalks; of fine quality.

MARY WASHINGTON

Deservedly the most popular variety of asparagus; rust resistant, with uniform spears and very tight tips of fine quality; heavily productive; of medium season.



Asgrow Stringless Green Pod. All-America Gold Medal 1933



Asgrow Black Valentine: attractive dark oval pods

BEANS

For the frozen pack only varieties of high quality are recommended. The pods should be straight, meaty, stringless and fiberless; clear in color and sufficiently tender in texture to avoid any risk of loss of color through requiring prolonged cooking; skin should be smooth and not given to splitting or sloughing.

In listing the number of days from planting to picking, we have used average results secured over a period of years. These figures apply to plantings under normal rainfall conditions, and will vary somewhat in different sections of the country. However, the number of days indicated is valuable in showing the relative seasons of the different varieties.

Culture: For best results beans require strong, well-drained, loamy soil. In the North, plantings should be made after danger of frost is past, during latter May and early June. Plant 4 to 6 seeds to the foot, 1½ to 2 inches deep in rows 24 to 30 inches apart depending on the richness of the land. It takes about 50 to 60 pounds of seed to plant an acre.

Green Podded, Dwarf or Bush Varieties

	Length of pod inches	Width of pod inches	Days from planting to picking
ASGROW STRINGLESS GREEN POD	6 to 6½	⅜	53
Our development. Received All-America Gold Medal for 1933. A handsome variety, for a frozen pack of fine appearance and quality. Similar to Full Measure, but hardier, and a more dependable cropper. Plant medium large, erect, somewhat thick stemmed, heavily productive. Pods nearly straight, dark green, round, meaty, succulent; stringless, totally without fiber. Seed 67 per oz., oblong, purple mottling on buff with brownish cast. Tendergreen is a similar variety.			
ASGROW BLACK VALENTINE	6½ to 7	⅜	49
Our development received All-America Silver Medal for 1933. Plant large, erect, prolific. Very attractive, oval pods nearly straight, dark green, strictly stringless, and of fine quality and delicate flavor; hold color and texture well; seed oval, 81 per oz., solid black.			
FULL MEASURE	6 to 6½	⅜	54
A well-known variety, having an upright prolific plant. Pods round, straight, very fleshy, stringless, free from fiber and tender; medium green. Seed 66 per oz., reddish brown mottled with buff. Less hardy and more susceptible to disease than most green podded sorts.			

BEANS—Continued

	Length of pod inches	Width of pod inches	Days from planting to picking
GIANT STRINGLESS GREEN POD This favorite stringless green podded sort has fully main- tained under freezing its fine reputation. Plant large, sturdy, prolific. Pods round, meaty, strictly stringless and brittle; with indentations between the beans; color medium green. Seed 72 per oz., oval, solid yellowish brown.	6 to 6½	$\frac{7}{16}$	54
STRINGLESS GREEN POD, IMPROVED Originally introduced as Burpee's Stringless Green Pod. Since its origination in 1894 by Calvin N. Keeney we have markedly improved the shape and length of pod of this early, sturdy, stringless variety. Plant large, erect, very productive. Pods round, medium green, very meaty, fully stringless and fiberless and of excellent quality. Seed coffee-brown, 75 per oz.	6	$\frac{7}{16}$	52
KEENEY'S STRINGLESS GREEN REFUGEE Our development, introduced in 1908. A medium late variety very popular with canners. Plant large, very spreading, with many tendrils and drooping branches; the most prolific of the Refugees. Pods silvery green, round, completely stringless, brittle, without fiber. Seed violet- purple, splashed with pale buff; 97 per oz.	5 to 5½	$\frac{3}{8}$	70
MOSAIC RESISTANT STRAINS OF STRINGLESS GREEN REFUGEE These new varieties are of importance both for disease resistance and satisfactory performance in frozen processing.			
IDAHO REFUGEE Developed by Dr. J. C. Walker and Dr. W. H. Pierce and introduced by the University of Idaho in 1934; resist- ant to common bean mosaic. Plant of true Refugee type and strongly prolific. Pods longer than regular Refugee, straight, round, silver-green, stringless, without fiber; seed purple-blue splashed with buff.	5¾	$\frac{3}{8}$	64
U. S. NO. 5 REFUGEE Developed by the U. S. Dept. of Agriculture. A cross be- tween U. S. No. 1 and a mosaic resistant rogue from String- less Green Refugee. Plant large, with many short tendrils, white-flowered, strongly prolific. Pods round, stringless, light silver-green without splashing, of excellent flavor; seed in size and shape like Refugee but with brownish mottling.	5½	$\frac{3}{8}$	62



Giant Stringless Green Pod. A popular Asgrow variety

BEANS—Continued



Round Pod Kidney Wax—also known as Brittle Wax

Wax Podded, Dwarf or Bush Varieties

The wax podded sorts lend themselves to a very attractive pack.

	Length of pod inches	Width of pod inches	Days from planting to picking
ROUND POD KIDNEY WAX OR BRITTLE WAX	5½ to 6½	¾	58
Originated by Calvin N. Keeney, and introduced in 1900. An outstanding sort for freezing. Plant large, erect, medium green, vigorous and moderately productive. Pods handsome in appearance, medium yellow, round, slightly curved, deeply creasebacked, extremely brittle, fleshy, succulent, absolutely stringless and fiberless; the standard of highest quality. Seed white, kidney shaped, with black eye; 78 per oz.			
KEENEY'S IMPROVED STRINGLESS KIDNEY WAX	5½ to 6¾	⅝	58
Introduced in 1908. Excellently adapted for freezing. Plant large, erect, reasonably productive. Pods oval, light yellow in color, brittle, stringless, fleshy, and of fine flavor. Seed white, kidney shaped with black eye; 75 per oz.			
PENCIL POD BLACK WAX	6½ to 7	⅞	55
Originated by Calvin N. Keeney; introduced in 1900. A handsome, early and productive variety. Plant large, stocky, vigorous and strongly productive. Pods round, slightly curved, fleshy, golden yellow, tender, entirely stringless, without fiber, brittle and of finest quality. Seed oblong, slightly flattened, 88 per oz., solid black.			

BEANS—Continued

Green Podded Pole Varieties

Culture: Sandy loam, well-enriched, is the best soil for pole beans. Plant in hills 4 feet each way 4 to 6 seeds to the hill about 2 inches deep, or in rows, on wires or poles. Poles 6 feet above ground should be set for the beans to climb on. It requires 30 to 35 pounds of seed to plant an acre.

	Length of pod inches	Width of pod inches	Days from planting to picking
BLUE LAKE	5 to 6	1½	63
Early, vigorous, strongly productive; a good climber. One of the most widely used in the West for the frozen pack. Snap pods round, medium green, fleshy, stringless when young, tender and of fine quality. Seed small, oval, ivory white; 120 per oz.			
KENTUCKY WONDER	7½ to 8½	½	65
The best known and most popular pole bean. For a frozen pack outstanding in color and texture, retaining after cooking these features and also the fine flavor for which Kentucky Wonder is so well known. Strong climber, hardy, very prolific over long season. Pods nearly round, curved, with undulating surface, meaty, of good quality; stringless when young, fiberless, very brittle. Seed 80 per oz., buff brown. Our special strain bred particularly for processing is highly free from flat pods.			
WHITE KENTUCKY WONDER, IMPROVED	6 to 7½	½	64
Has performed well in freezing tests. Plant medium, 4 to 5 feet tall, good climber. Resistant to certain forms of bean rust. Pods round, slightly curved, bright green, tender, fleshy, stringless, fiberless, and of good quality. Seed oval, white, 90 per oz.			



Kentucky Wonder progenies on one of our western breeding grounds

Lima Beans, Bush



Henderson's Bush Lima. The Asgrow strain is early and concentrated in season

Lima beans hold their shape and color well under frozen processing and give an excellent pack either alone or in succotash.

Culture: Lima beans are particularly susceptible to injury from cold, wet weather and therefore should not be planted until two weeks later than string beans. Sandy loam well manured or heavy sod plowed deeply is the best foundation for producing crops of this item. In some areas lima beans are planted in latter June as a second crop after peas in which case only moderate yields can be expected. Sow seed 1½ to 2 inches deep in rows 22 to 28 inches apart with 3 to 5 seeds to a foot in the row. 40 to 50 lbs. of seed are required to plant an acre.

	Length of pod inches	Width of pod inches	Days from planting to picking
BABY POTATO LIMA	2½ to 2¾	7/8	67
A new and very attractive variety of lustrous green color in the frozen pack developed by us in conjunction with Prof. W. A. Huelson of the University of Illinois. The plant is similar to Henderson's Bush but pods are slightly smaller and beans distinctly thicker, with flavor similar to that of Fordhook Bush. Very uniform in maturity. Another strain of this important new variety is also available, maturing a week later.			
FORDHOOK BUSH, CONCENTRATED STRAIN	4 to 4½	1	75
A new Asgrow strain, concentrated in its habit of bearing pods and in maturity. Plant large, upright, vigorous, highly productive. Pods straight, with thick fibrous walls; contains 3 to 4 seeds. Green shelled beans large, thick-oval, green of excellent quality, potato lima type, used mostly in succotash.			
HENDERSON'S BUSH	2¾ to 3	¾	65
By far the most extensively used for freezing. The Asgrow strain, developed through a period of years by intensive breeding, is exceptionally uniform in plant growth and more concentrated and earlier in season than standard stocks, resulting in a larger percentage of green beans at picking stage. Plant small, dark green, erect, bushy, very early. Pods flat, contain 3 to 4 seeds. Green shelled beans flat, small, of excellent color and quality. U. S. No. 2 is similar but two days earlier.			

Lima Beans, Pole

CARPINTERIA	5½ to 6	1¼	90
Strong, tall plants; pods smooth and straight with 3 to 5 beans. Has shown up well in California freezing tests.			
KING OF THE GARDEN	6 to 7	1¼	88
Has given good results in frozen succotash. Plant tall, good climber, vigorous, heavily productive. Pods flat, smooth, with 4 to 5 large beans. Seed large, flat, white, 25 per oz.			



Italian Green Sprouting Broccoli, increasingly popular

BROCCOLI

This delicious vegetable retains its texture and color well through freezing and has proven a popular pack. It should be processed directly after picking.

Culture: Sow seed in plant bed in early May in rows 8 to 9 inches apart and plants will be ready to transfer to field in June. Set plants 1½ feet apart in rows 3 to 3½ feet apart. Rich soil with plenty of moisture is needed for strong development and tender stems and heads. 4 ounces of seed will plant an acre.

CALABRESE OR ITALIAN GREEN

Days from
setting of plants
to first cutting
55 to 65

A tall branching plant which forms a central head of bluish green flower buds resembling a loose head of Cauliflower. After the main head has been removed, side branches continue to develop throughout the season and form small heads which, with a small part of the stem, are cut and frozen. A new Asgrow strain of true sprouting type does not form a prominent central head, but bears individual sprouts. This will be available for 1940 plantings.

BRUSSELS SPROUTS

One of the latest additions to the list of quick frozen vegetables and likely to be popular because of the trim appearance in the carton of these miniature cabbages.

Culture: This crop requires very much the same treatment and conditions as cauliflower. It will grow in any soil that is good for cabbage provided it is well cultivated and reasonably enriched. Care should be taken not to overfeed the plants which may lead to the sprouts becoming coarser and larger than is desirable for canning. Rows should be 3 feet apart with 1½ to 2 feet between plants. Four ounces of seed will produce enough plants for an acre.

HALF DWARF IMPROVED

70

Plants 20 to 24 inches tall; stem thickly set with firm Cabbage-like balls of 1½ inch diameter, maturing successively.

LONG ISLAND IMPROVED

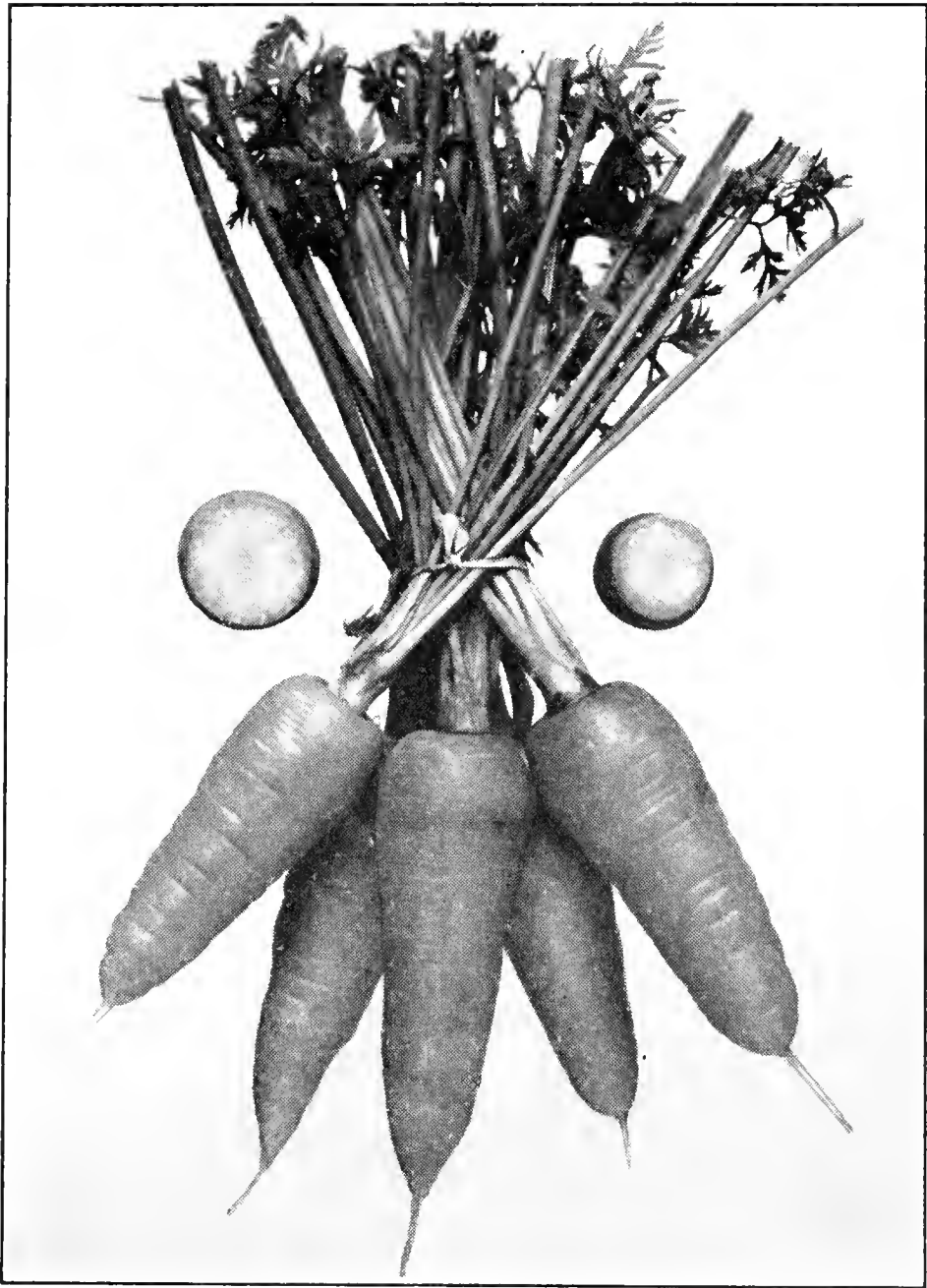
70

Similar to the above but a little more dwarf in habit of growth. Compact, firm buttons with dish shaped leaves.

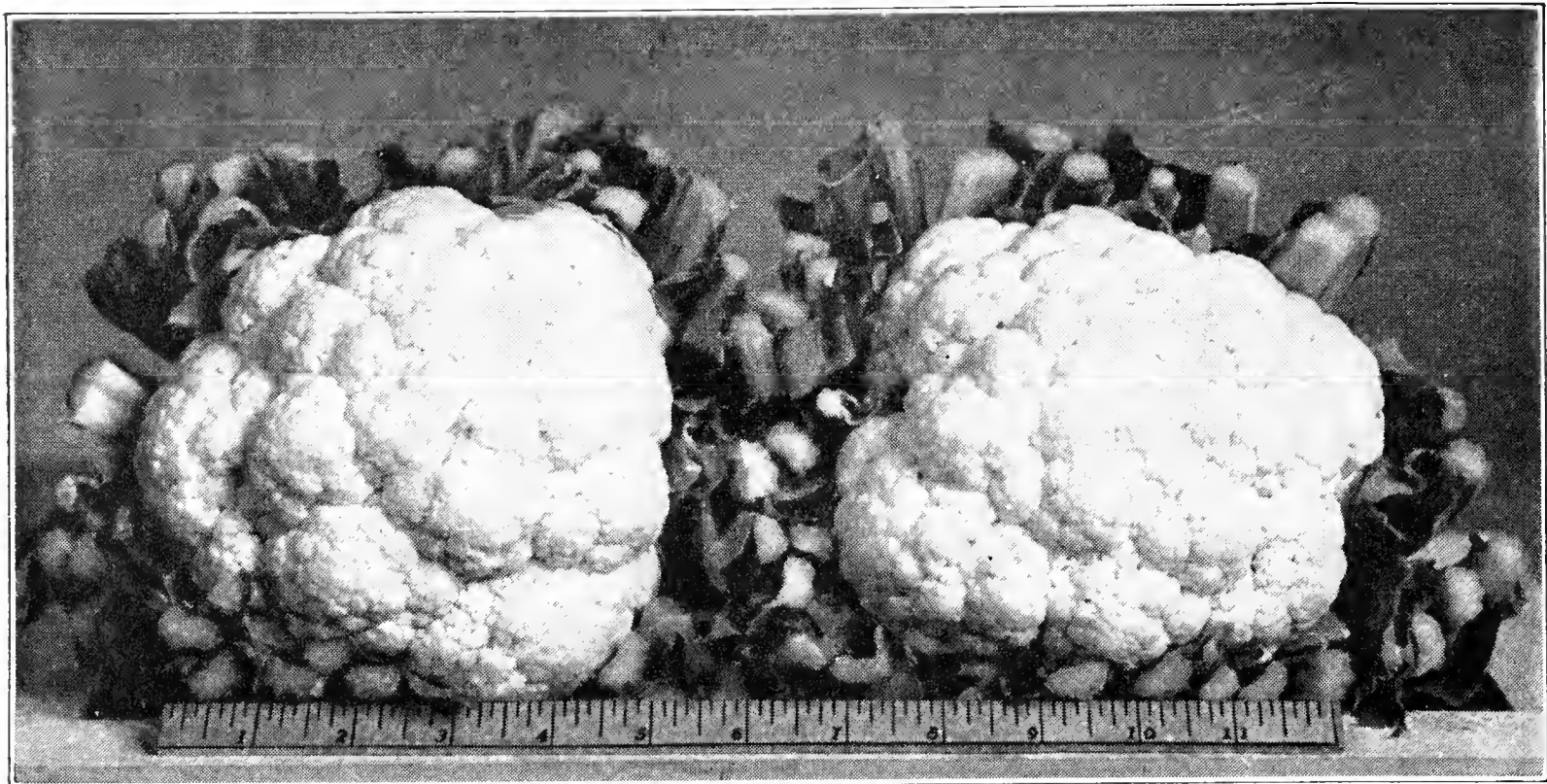
CARROT

Culture: For best development carrots require rich, sandy loam soil plowed deeply, and well drained. For field planting sow seed in rows 2 to 2½ feet apart to allow for machine cultivation; for smaller plots to be cultivated by hand, 18 inches between rows is sufficient. 3 to 5 pounds of seed are required to plant an acre.

	Length of root inches	Diameter at shoulder inches	Days from planting to pulling
CHANTENAY, RED CORE	4½ to 5½	2¼	72
Excellent for dicing. A desirable Chantenay with good interior color. Roots somewhat shorter than Improved Chantenay; flesh reddish orange, with indistinct core of nearly the same color as the surrounding flesh; tender and sweet.			
FRENCH FORCING	1½ to 2	1¼ to 1½	60
Used for earliest planting and freezing whole. Tops very small; roots nearly round, red-orange. Flesh medium red-orange, crisp and of good flavor.			
NANTES IMPROVED CORELESS	5½ to 7	1⅜	70
A trim cylindrical carrot for packing whole. Tops very small. Roots bright orange, straight, blunt ended. Flesh reddish orange, crisp, tender, and of very delicate flavor; practically coreless.			



Red Core Chantenay Carrot



Snowdrift has large, firm and very white heads

CAULIFLOWER

A compact, smooth head free from riciness is always desirable, and for the best frozen pack it is necessary. Care must be taken in handling and processing to avoid wilting.

Culture: Sow seed in plant bed in drills 9 inches apart in May and transplant to fields in latter June or early July in rows 3 to 4 feet apart with 1½ to 2 feet between plant in the row. Deep rich soil with an abundance of moisture is necessary for good crops. Frequent cultivation with top dressing of fertilizer insures rapid growth and delicate flavor. For blanching, the leaves should be gathered loosely and tied over the top of the head. 4 ounces of seed will produce plants sufficient to set an acre.

	Diameter of head inches	Days from setting of plants to marketable heads
EARLY SNOWBALL	6 to 7	55
The best and most widely used early variety. Plant dwarf, with short pale green leaves. Heads medium, firm, compact, solid, pure white, and of finest quality; a dependable header.		
SNOWDRIFT	7 to 8	57
One on the best varieties for shipping long distances. Plant of medium height with upstanding, medium green outer leaves. Head slightly larger than Snowball, firm, solid, very white, well protected by inner folding leaves: curd has fine texture and is free from small protruding leaves.		
SUPER-SNOWBALL	7 to 7½	56
A highly desirable main crop variety, also used for early planting. Starts heading early and uniformly. Heads medium large, compact, very white; much used in fresh vegetable industry and has given very satisfactory results in Eastern freezing.		

SWEET CORN

One of the triumphs for quick freezing is the preservation of sweet corn, either as whole kernel or as corn-on-the-cob, with remarkably little change of flavor, texture or color. The physiological changes that begin as soon as an ear has been picked make prompt handling imperative and the sooner processing is completed the more satisfactory will be the product.

Sweet Corn has been an important item with us for nearly eighty years, during which time we have originated a number of the best known varieties. Our breeding program includes the development of disease resistant strains as well as emphasizing the factors of uniformity in type, tenderness of hull and productivity.

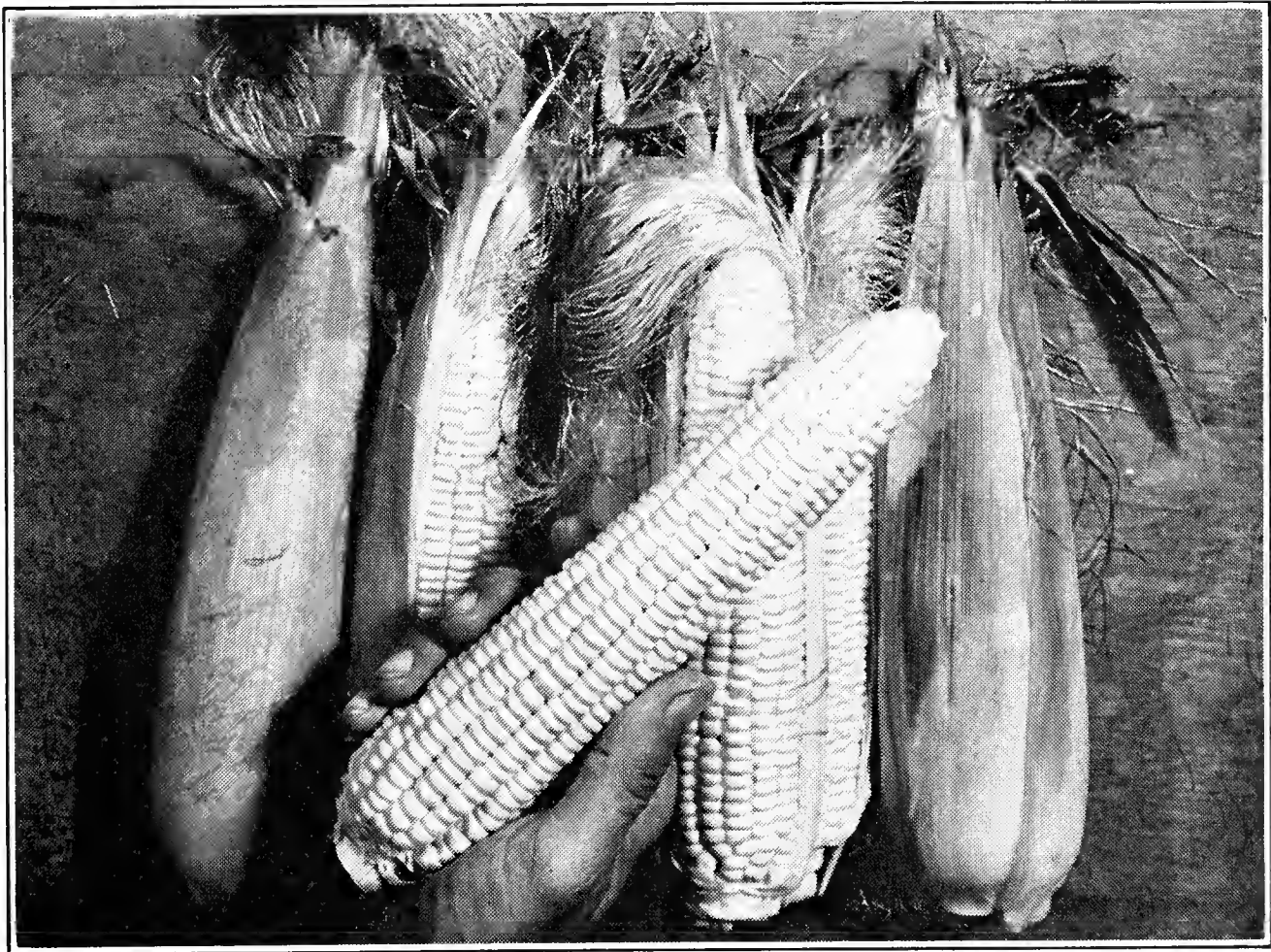
Through the use of scientific breeding methods for the improvement of Sweet Corn varieties, we have developed during sixteen years of controlled pollination a number of inbred lines of high merit. The crossing of these, in experimentally determined combinations, produces hybrids of outstanding vigor, uniformity and productivity.

From these years of experience and from trial plantings in canners' fields and at Agricultural Experiment Stations in various states, we are in position to recommend to our customers the particular hybrids or top crosses best adapted to their sections.

The figures quoted below refer to Eastern conditions and for purposes of comparison.

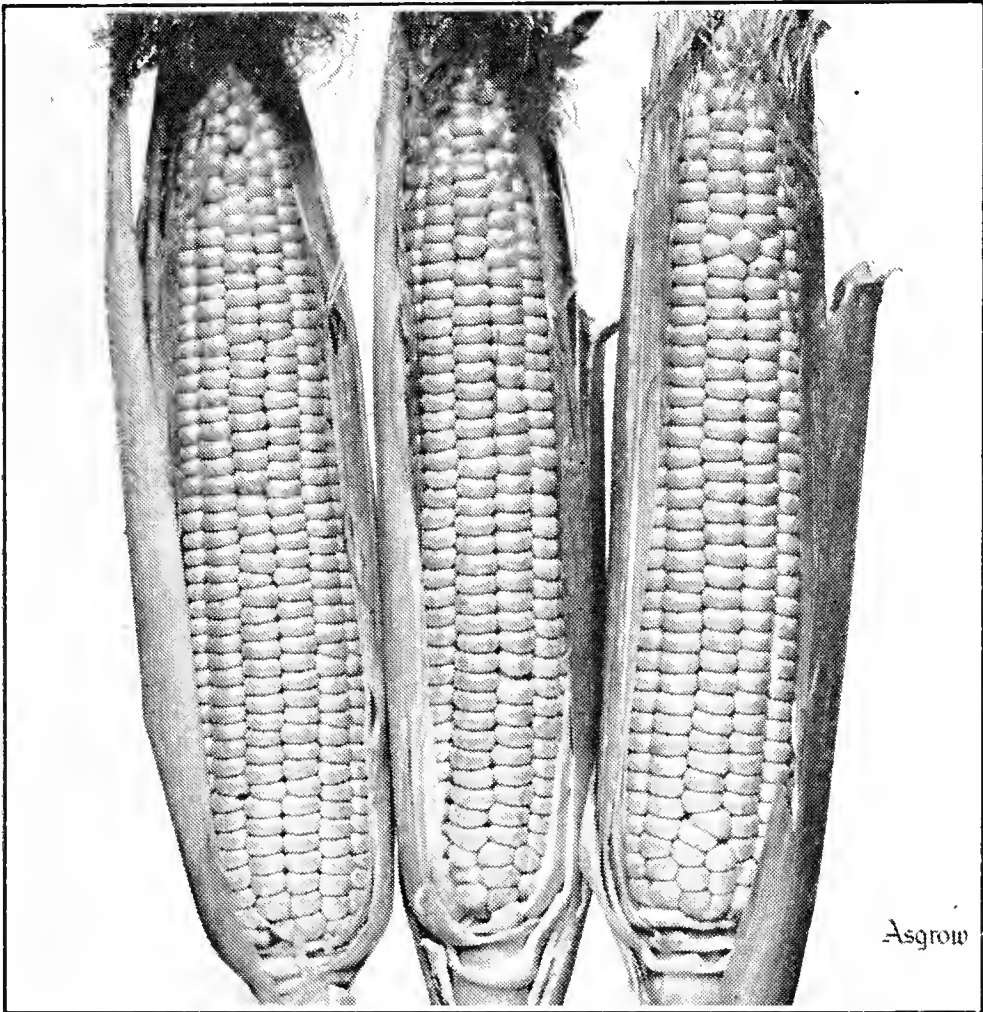
HYBRIDS
Yellow Varieties

	Height of stalk feet	Length of ear inches	Days from planting to eating stage
GOLDEN HYBRID 2439	7	8	89
Our own development from crossing inbred lines Asgrow 24 x Purdue 39; introduced in 1930. Has been given highest ranking for the frozen pack. Stalk upright, sturdy, uniform; leaves wide, dark green. Ears cylindrical, 1 7/8" diameter, 14 to 16 rowed. Kernels golden yellow, medium wide and deep, with tender hull, sweet and of excellent quality. Similar to Golden Cross Bantam but with heavier foliage, fewer suckers and ears carried higher on the plant, permitting easier harvesting. Highly resistant to Stewart's wilt.			



Golden Hybrid 2439
Particularly desirable for freezing

SWEET CORN—Yellow Hybrids (continued)



Golden Cross Bantam

GOLDEN CROSS BANTAM

Developed by Glenn M. Smith and introduced jointly by the U. S. Dept. of Agriculture and Purdue University Agricultural Experiment Station. This popular hybrid has been extensively used for freezing and has yielded an excellent product. Ears 1¾" diameter, 10 to 14 rowed, slightly lighter yellow than Golden Bantam. Kernels medium in width and depth. This hybrid is extremely uniform in plant and ear characteristics and in maturity. Highly resistant to Stewart's wilt.

Height of stalk feet	Length of ear inches	Days from planting to eating stage
6	7½ to 8	88



Many experimental crosses are made on our Corn Breeding Grounds each year in the evolution of hybrids. In this way outstanding combinations are developed.

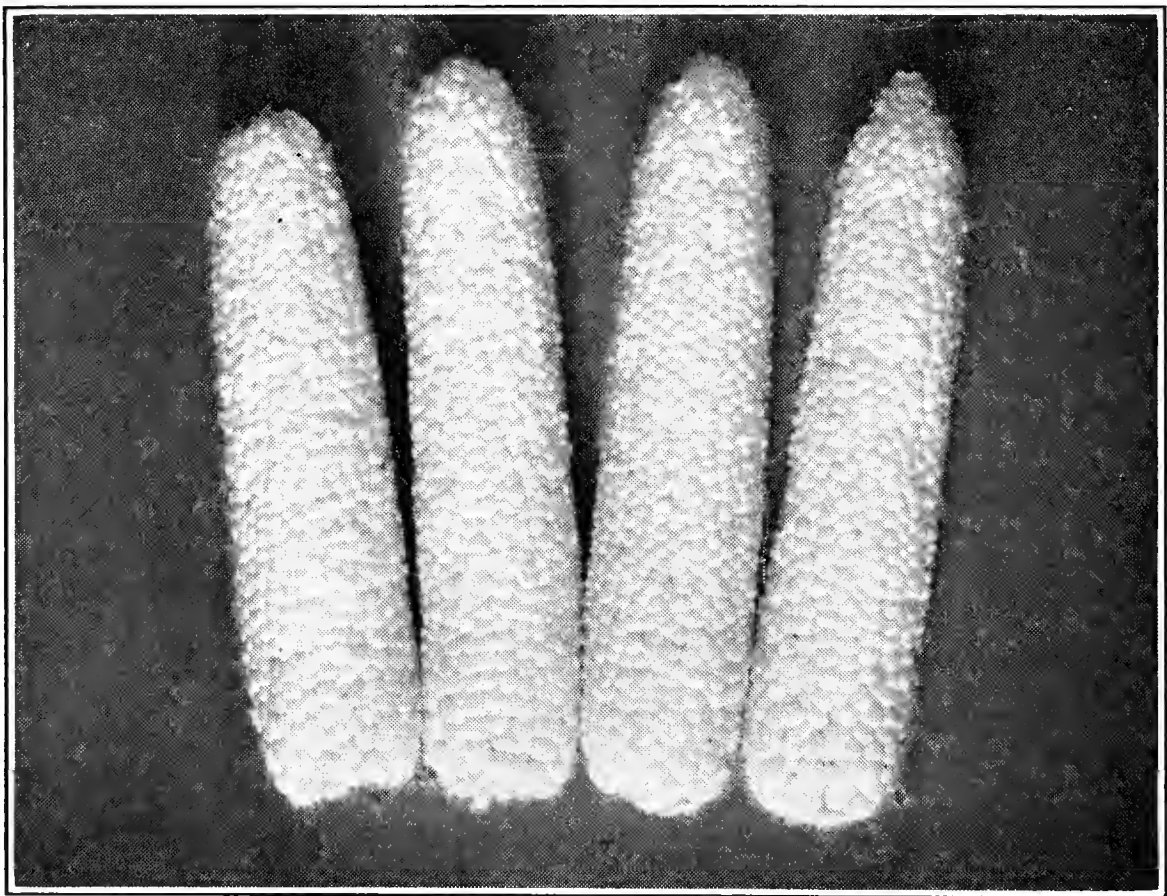
	Height of stalk feet	Length of ear inches	Days from planting to eating stage
MINHYBRID NO. 202	5 to 6	6 to 8	76
A development of the Minnesota Agricultural Experiment Station particularly desirable for packing corn-on-the-cob; one of the few 8-rowed yellow hybrids. Stalk sturdy, medium tall. Ears 1½" diameter, predominately 8-rowed. Kernels medium large, yellow, of quality comparable with Golden Bantam; cob extremely small. This variety is probably best suited to areas with short season and long days.			
TOP CROSS BANTAM	6	7 to 7½	86
Our introduction developed from crossing a drought resistant Golden Bantam and a prepotent inbred; introduced in 1931. Placed in first rank in recent freezing tests. Similar in plant characteristics to Golden Cross Bantam but not quite as uniform. Stalk sturdy with vigorous leaves. Ears 1⅝" diameter, 10 to 14 rowed; color deep yellow, similar to Golden Bantam. Kernels medium, tender and sweet. Highly resistant to Stewart's wilt.			
TOP CROSS MAINE BANTAM	5½ to 6	7 to 7½	82
One of our recent developments particularly adapted for short season areas; introduced in 1934. Stalk sturdy, with deep green foliage; ear 1⅞" diameter, similar to Golden Cross Bantam and somewhat thicker, very slightly tapered with 10 to 14 rows; kernels deep yellow, tender and of excellent flavor. Very successful results are being obtained from this new introduction. Highly resistant to Stewart's wilt.			
TOP CROSS SUNSHINE OR TENDERGOLD	5½ to 6	7½	80
About a week ahead of Golden Cross Bantam. Stalk sturdy and vigorous with strong foliage; highly resistant to bacterial wilt. Ear nearly cylindrical, 1⅞" diameter, 12 to 16 rowed, kernels medium in width and depth, golden yellow, tender and of good quality. Desirable for northerly sections of shorter season.			
TOP CROSS WHIPPLE'S YELLOW or Whipcress P39	7	7½	84
This very uniform intermediate top cross was developed primarily for home and market garden use, but in freezing tests has been given the rating Good. Stalk sturdy with strong foliage; highly resistant to Stewart's wilt; ears 1¾" diameter, 12 to 14 rowed, well filled at tip; kernels golden yellow of medium length and good flavor. Very prolific.			



Hybrid sweet corn: a crossing field on one of the Asgrow breeding farms. The lighter rows are pollen parents; the others, which have been detasseled, furnish the seed.

SWEET CORN—Hybrids (continued)
White Varieties

	Height of stalk feet	Length of ear inches	Days from planting to eating stage
SHOEPEG HYBRID (19 x 9) Our introduction, developed from crossing inbred lines Asgrow 19 x Asgrow 9. Stalk sturdy, upright with ears 3½ to 4 feet from ground. Ears 1¾" diameter, long, cylindrical, well filled at tip. Kernels very fine and deep, tender and of excellent quality.	8½ to 9	8	93
COGENT HYBRID (19 x 24) Another Country Gentleman Hybrid of our breeding; introduced in 1929. Fine grained though somewhat larger kernel type than Hybrid 19 x 9. Well adapted for areas of heavy, rich soil in the Eastern States. Stalk erect with good foliage and strongly prolific. Ears 1⅞" diameter, medium long, slightly tapered, well filled at tip.	8 to 9	7½	93
NARROW GRAIN HYBRID (26 x 15) Developed by crossing inbred lines Asgrow 26 x Asgrow 15. Introduced in 1931. Very uniform and highly desirable for canning. Stalk sturdy, upright with no suckers; leaves wide, dark green. Ears tapered, 1⅞" diameter, with 20 to 22 rows. Kernels medium narrow, deep, tender.	8	7½	94
STOWELL'S EVERGREEN HYBRID (14 x 5) Our development from crossing inbred lines Asgrow 14 x Asgrow 5. Introduced in 1930. Received All-America Bronze Medal for 1934. Has achieved the highest ranking in Eastern freezing tests. Stalk sturdy with close growing upright ears, 4 feet from ground; foliage medium green. Ears large, very slightly tapered, uniform, 2" diameter with 16 to 18 rows. Kernels white, medium wide, deep; medium cob.	9	9 to 9½	96



Shoepeg Hybrid (19 x 9)

SWEET CORN—Continued

OPEN-POLLINATED

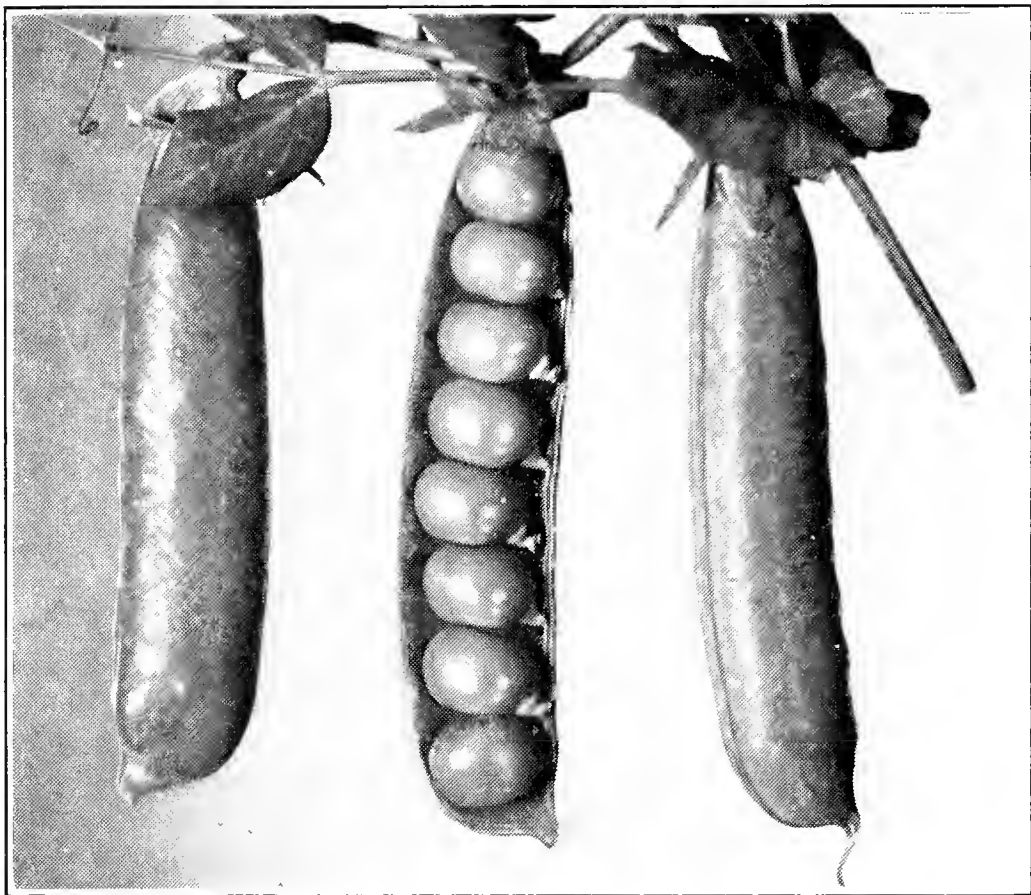
Yellow Varieties

	Height of stalk feet	Length of ear inches	Days from planting to eating stage
GOLDEN COLONEL Our cross between Country Gentleman and Golden Bantam. Similar in stalk and ear characteristics to Country Gentleman except for its golden color. Must be picked young and processed promptly. The latest maturing yellow sweet corn.	7 to 8	7 to 7½	91
BANTAM EVERGREEN Also known as Golden Evergreen. Bred by the Everett B. Clark Seed Company and introduced in 1910. A cross of Golden Bantam on Stowell's Evergreen having Evergreen type of ear with 14 to 18 rows, 1⅞" diameter. Kernels rich, golden yellow, deep, with tender hull, sweet, and of fine quality. A superior medium late variety which has been outstandingly successful in the frozen pack.	7 to 8	7 to 8	89
GOLDEN BANTAM One of the most extensively grown of the open-pollinated yellow varieties but susceptible to bacterial wilt. Stalks often have 2 ears. Ears 8 rowed, 1⅜" diameter; kernels broad, with tender hull, sweet, and of very fine flavor.	5 to 5½	6 to 6½	80
GOLDEN BANTAM, IMPROVED 10-14 ROWED Our development, introduced in 1922. A selection from the original strain of Golden Bantam resulting in a larger ear with more rows and greater productivity. Ears 10 to 14 rowed, 1¾" diameter, uniform and attractive. Kernels golden yellow, medium wide, deep, sweet, and of fine flavor; remain tender longer than regular Golden Bantam. Of highest rank in freezing tests.	5½ to 6	6 to 6½	84

OPEN-POLLINATED

White Varieties

COUNTRY GENTLEMAN or SHOE PEG A late prolific variety of excellent quality. Stalk often with two ears. Kernels very deep, slender, sweet, with tender hull, and set irregularly without row formation. Ears 1⅞" diameter.	7 to 8	7 to 7½	93
NARROW GRAIN (MIDWEST) EVERGREEN A particularly high-yielding strain with exceptionally attractive ears, 1⅞" diameter, 16 to 22 rowed. Deep, slender white kernels, of tender hull, sweet and of fine flavor.	8 to 10	7 to 8	95
STOWELL'S EVERGREEN The best known late variety of Sweet Corn; a stock first grown in 1847 by Nathan Stowell at Burlington, N. J. Has maintained under freezing its deservedly high reputation, having been placed in the First Class in tests. Stalk sturdy and erect; ears 2⅛" diameter, uniform, 16 to 20 rowed. Kernels clear white, deep, rather broad, sweet and tender. Holds well in prime condition at eating stage.	8 to 10	8 to 9½	95



Glacier: earlier than Thomas Laxton

PEAS

Culture: Peas are grown successfully on various types of well-drained, non-acid, mellow soils but deep fertile loam with some clay mixture is best under rainfall conditions. In western areas, under irrigation, lava ash and loess with good humus content produce the most satisfactory crops. Fall plowing is recommended, also application of lime where needed. Sow seed broadcast with grain drill as soon as land can be properly worked in the spring. When commercial fertilizer is used, direct contact between seed and fertilizer should be avoided. 3½ to 4½ bushels are required to plant an acre.

Early and Second-Early

	Height of vine inches	Length of pod inches	Days from planting to picking
BANQUETER	32 to 36	4	64
Has shown up well in freezing tests. Vine medium green; pods single, medium green, plump and pointed with 8-9 large, dark green peas of fine quality.			
GLACIER	30 to 34	3½ to 3¾	60
Developed by us to meet the need for a variety somewhat earlier than Thomas Laxton but of the same general type and fully resistant to fusarium wilt. The vines are dark green and medium heavy. Pods single, dark green, blunt ended, plump and well filled with 7 to 8 deep green, semi-round peas of excellent freezing quality; sieve sizes 3 to 7. The dry seeds are large, cream and green, wrinkled.			
HUNDREDFOLD	18 to 20	4	63
A very attractive, early, large podded sort, resembling Laxtonian. Vine very dark green, stout, has tendency to develop "spikey" top. Pods single, broad, very deep green, pointed, curved; contain 8 large peas of excellent quality. Frozen peas oblong, dark green; sieve sizes 3 to 7. Seed large, wrinkled, yellow and green, somewhat flat.			

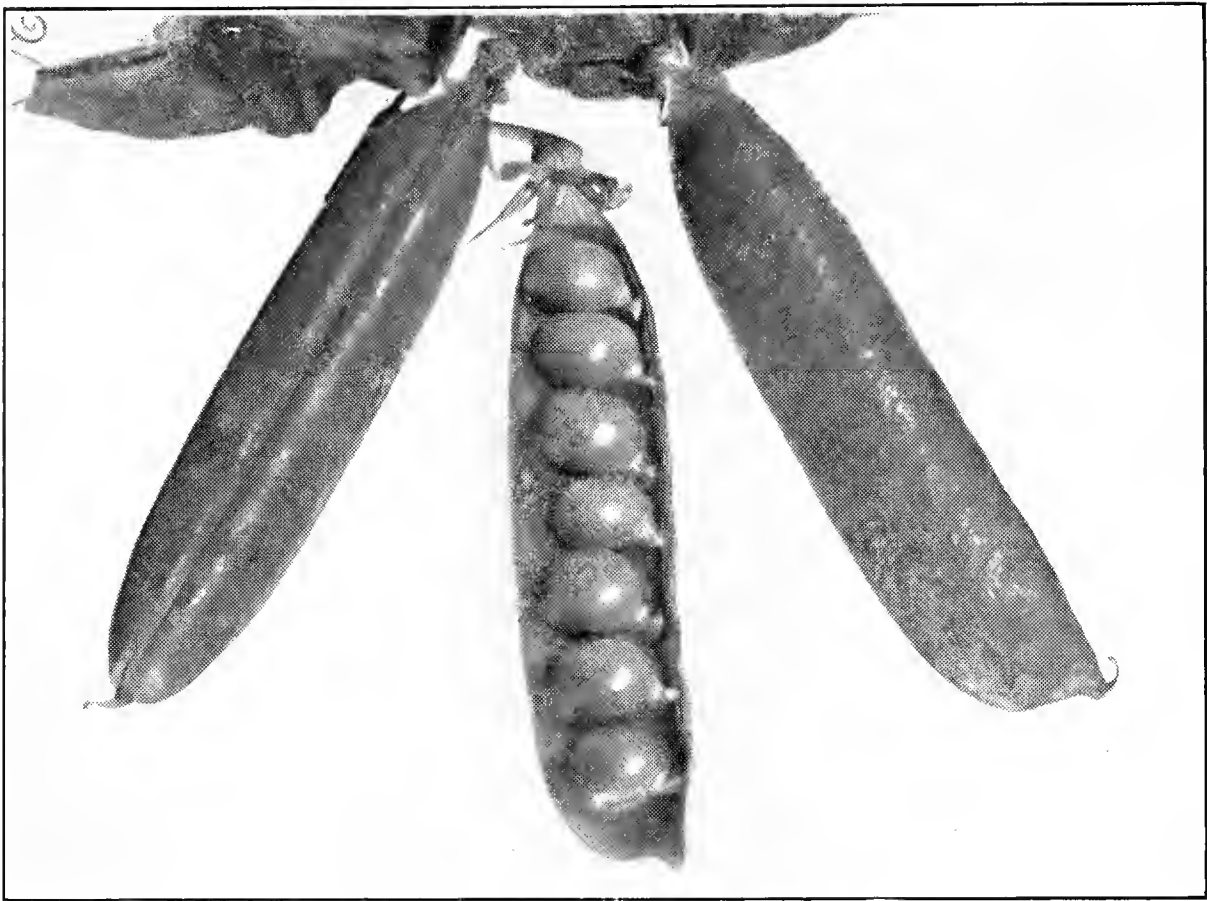
PEAS

Early and Second-Early (continued)

	Height of vine inches	Length of pod inches	Days from planting to picking
LAXTONIAN—BLUE BANTAM STRAIN	18	3¾	62
The best known of the early, dwarf, large podded sorts. Vine dark green, rather coarse; "tops off" well at maturity. Pods single, broad, dark green, slightly curved, pointed; contain 7 to 8 large, succulent peas. Frozen peas oblong, deep green; sieve sizes 3 to 7. Seed large, flattish, yellow and green, wrinkled.			
LAXTON'S PROGRESS	16 to 18	4	62
Developed by Laxton Bros. and introduced in 1922. The largest podded and most attractive of the Laxtonian family. Vine medium dark green. Pods single, 7⁄8 inch wide, dark green, somewhat curved, pointed, handsome; contain 7 to 9 large peas of good quality. Frozen peas oblong, deep green; sieve sizes 3 to 7. Seed large, cream with green, wrinkled. Our strain of this important variety is noted for its solid deep green color.			
TETON	36 to 38	3½ to 3¾	66
A variety of the Thomas Laxton type, but fully resistant to fusarium wilt. Developed on our Montana breeding grounds and introduced in 1938. Notably successful in the frozen pack. Vine dark green, medium heavy. Pods single, large, straight, blunt, dark green, concentrated in season; well filled with 7 to 8 large, succulent peas of very fine quality. Frozen peas semi-round, olive green; sieve sizes 3 to 7. Seed large, cream and green, wrinkled.			



Teton: to follow Thomas Laxton



Dark Podded Thomas Laxton

THOMAS LAXTON, DARK PODDED	32 to 36	3½	63
The original light-colored strain was introduced by Laxton Bros. in 1898. Our improved dark podded strain retains the earliness of the first introduction but is more attractive in both vine and pods. Of highest excellence for freezing. Vine deep green and medium heavy. Pods single, rich deep green, plump, broad, blunt; contain 7 to 8 large, tender peas of splendid quality. Frozen peas semi-round, olive green; sieve sizes 3 to 7. Seed of medium size, cream and green, wrinkled.			
WORLD'S RECORD	24 to 26	3¼	61
Vine light green, medium heavy. Pods single, medium green, pointed, broad, plump; contain 7 to 8 large tender peas of fine quality. Frozen peas oblong, deep green with thin skin; sieve sizes 3 to 7. Seed large, cream and green, wrinkled. Our strain is noted for earliness and size of pods.			



The development of varieties resistant to disease is an important part of the Asgrow Breeding Program. In the rows shown here, susceptible and resistant strains are growing together on "sick" soil.

PEAS—Later Varieties

ALDERMAN or DARK PODDED TELEPHONE (Tall)

A handsome large podded variety of the Telephone family. Excellent for freezing. Vine dark green, coarse; resistant to fusarium wilt. Pods single, very broad, plump, straight, dark green, pointed; contain 8 to 10 peas of highest quality. Frozen peas oblong, dark green; sieve sizes 3 to 7, and a few larger. Smaller sizes should not be frozen as they tend to lose their flavor. Seed large, wrinkled, light green.

CONFIDENCE

A promising new introduction. Vine light green, somewhat heavy. Pods double, straight, blunt, dark green; with 6 to 8 large, dark green peas.

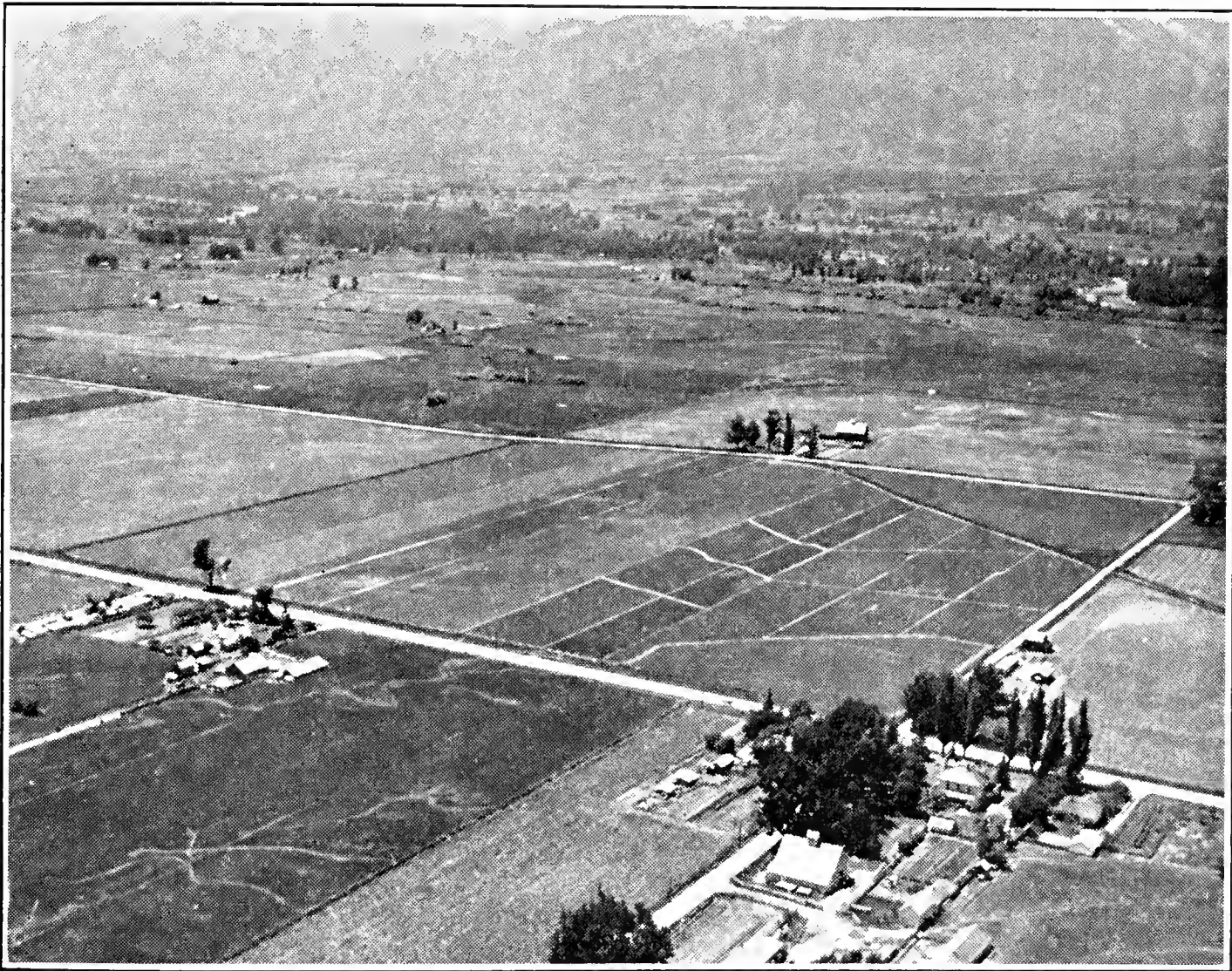
DWARF ALDERMAN

Vine dark green, stocky, resistant to fusarium wilt. Pods single and double, dark green, plump, pointed, slightly curved; contain 7 to 9 large peas, sieve sizes 3 to 7, and a few larger. Seed large, green, wrinkled.

Height of vine inches	Length of pod inches	Days from planting to picking
40	4½ to 4¾	74

28 to 30	3¾	70
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24	4	76
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Asgrow Breeding Grounds at Hamilton, Montana

By breeding pedigree stocks through generations of pure-line cultures, we are continually improving existing leading varieties of peas. This intensive process, supported by careful inspection and checking of field crops, produces exceptionally high grade stocks. In addition to maintaining standard varieties, new strains are developed by means of hybridization and selection, which enable us to combine desirable plant characters such as disease resistance, productiveness, and quality of two or more parents in new and more useful introductions.

In the number of days from planting to picking, we have indicated average results under normal rainfall conditions. These figures will be of assistance in comparing the relative earliness or lateness of the various varieties when planted in the same locality.

PEAS—Later Varieties, Continued

	Height of vine inches	Length of pod inches	Days from planting to picking
GRADUS, IMPROVED A popular second early, large podded variety. Vine medium green, stocky. Pods single, broad, plump, pointed, medium green; contain 8 to 10 large, sweet, delicious peas. Frozen peas oblong, deep green, tender; sieve sizes 3 to 7. Seed large, wrinkled, green.	36	4	65
MORSE'S MARKET A large podded, mid-season, dwarf variety ranked Very Good in freezing tests. Vine medium green, sturdy, somewhat coarse. Pods dark green, single, plump, curved, pointed; contain 7 to 9 peas. Seed large, cream with green, wrinkled.	22	4½	68
NO. 40 Our introduction in 1932. Resembles Stratagem, but 4 to 5 days earlier; unexcelled in pod size, and resistant to fusarium wilt. Vine dark green, stocky and branching. Pods single and double, round, dark green, plump, pointed, curved at tip; contain 8 to 10 large, succulent peas. Sieve sizes 3 to 7 and a few larger. Medium dark green in color when frozen. Seed large, wrinkled, green.	26	4½ to 5	75
ONWARD A medium late variety, very fine in quality and of strong productivity; good for freezing where large, tender peas are desired. Vines medium light green with heavy stem and foliage. Pods single and double, ¾" wide, medium green, blunt, straight, attractive; contain 6 to 8 large, succulent peas. Frozen peas, oblong, dark green; sieve sizes 3 to 7. Seeds large, green, wrinkled.	27	3¾	74
PRESIDENT WILSON Developed by Sutton and Sons and introduced in 1919. A handsome second early dwarf variety, with exceptionally large, attractive pods. Vine very dark green, stocky, with large leaves. Pods single, broad, plump, pointed, slightly curved, rich deep green; contain 8 to 9 large succulent peas. Frozen peas oblong, dark green; sieve sizes 3 to 7, and a few larger. Seed large, wrinkled, green.	20	4 to 4½	65
STRATAGEM, IMPROVED A superior late variety for freezing; resistant to fusarium wilt. Vine deep green, stocky, and branching. Pods single and paired, 7/8" wide, nearly round, straight, pointed, dark green; contain 8 to 10 tender, succulent peas. Frozen peas oblong, dark green; sieve sizes 3 to 7, and a few larger. Seed large, wrinkled, green.	26	4½	79

The number of days mentioned for different varieties indicates the period from planting to picking stage. Naturally they cannot be the same for every section of the country and varying conditions of soil or temperature. They are, however, based on averages from the different Asgrow breeding and trial grounds and will serve as an approximate guide and enable comparison between varieties.

SPINACH

This necessary vegetable has been frozen more in the West than in the East, but in both sections satisfactory results have been achieved, particularly with the thick leaved sorts, though all varieties may be successfully packed if care is taken in processing to avoid loss of firm texture. The days given are for comparison; they vary depending on time of sowing, etc.

Culture: For best results, spinach requires a large amount of humus in the soil. Sowings can be made in March and April for early summer harvest and in August and September for fall crop. Plant seed in rows 16 to 24 inches apart. 15 to 20 pounds of seed will sow an acre.

	Days from sowing to cutting
BLIGHT RESISTANT SAVOY (VIRGINIA SAVOY)	39
A Savoy-leaved sort, bred at the Virginia Experiment Station for mosaic resistance. Upstanding, vigorous plants; seeding rather early; highly desirable for planting in infested soil. Leaves somewhat smoother than other strains of Savoy.	
DARKIE	45
A recent introduction of high quality; received the All-America Bronze Medal for 1937. Hardy and well adapted to fall planting; a slow seeder. Leaves large, smooth, very thick with intense dark green color. An attractive variety.	
GIANT NOBEL or GIANT THICK LEAVED	45
A recent European introduction of high merit. Plant large, vigorous, and spreading; slow to form seed stalks, and an extremely heavy yielder. Leaves very large, thick, smooth, pointed with rounded tip; deep green, tender. The best of the thick leaved sorts.	
KING OF DENMARK	46
An exceptionally long standing sort. The large, spreading plants carry broad, rounded, very dark green leaves, which are somewhat crumpled. Excellent for spring planting, as seed stalks are slow in forming.	



Giant Nobel, a very productive, thick-leaved, well-flavored sort

SPINACH--Continued



Bloomsdale Savoy, Long Standing. Very popular with commercial growers

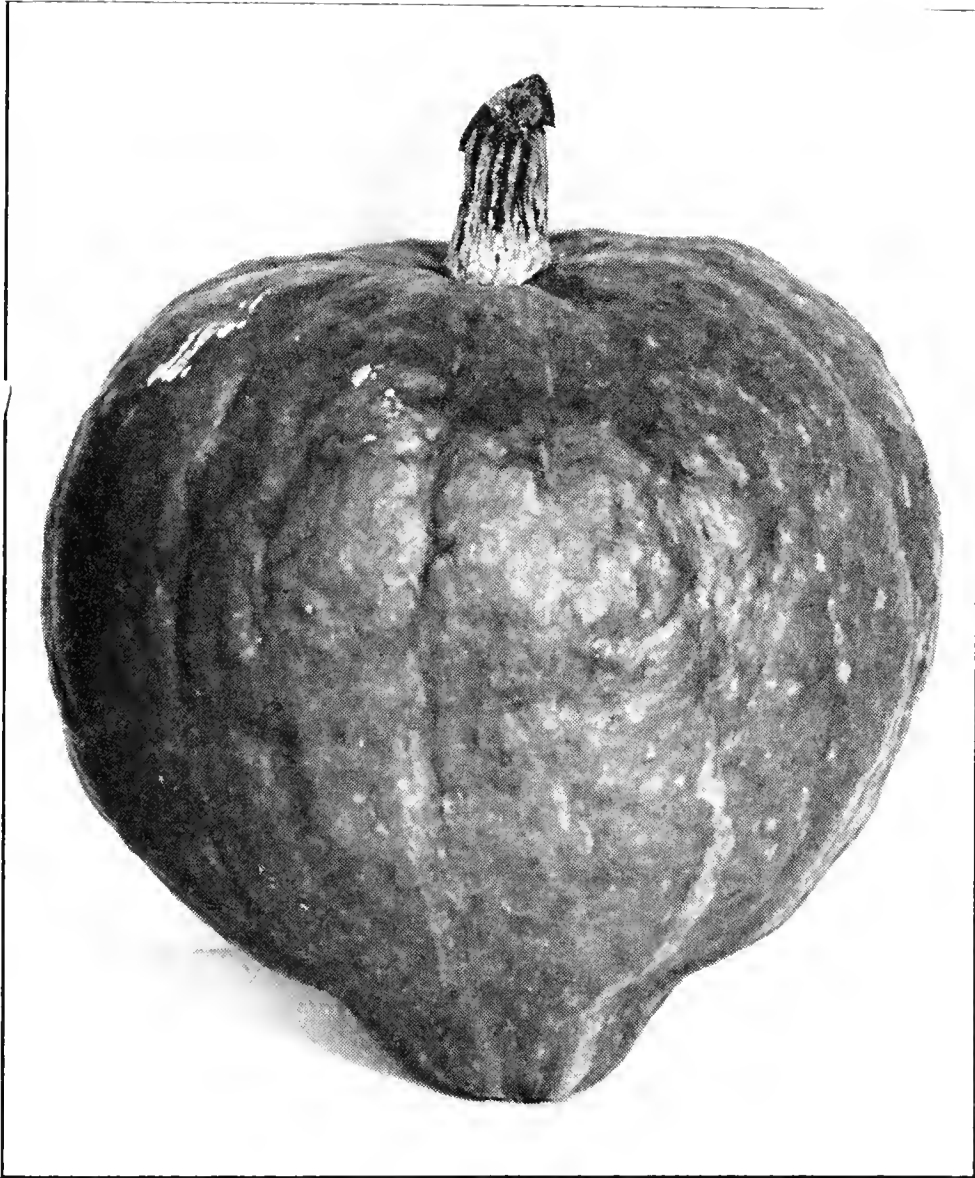
	Days from sowing to cutting
OLD DOMINION	40
Developed at the Virginia Agricultural Experiment Station. A cross between Virginia Blight Resistant Savoy and King of Denmark, resistant to mosaic and of long standing character. Plant similar to Savoy but leaves somewhat more pointed. Used mostly in fall plantings for early spring harvest.	
VIKING	45
This new variety may well be described as a dark green Nobel and is also known as Northland. Plant large, spreading, vigorous, long-standing and heavily productive. Leaves very large, thick, dark green.	
VIROFLAY	45
An extremely large mid-season, vigorous growing variety, with long, broad, pointed, thick, smooth leaves, of deep green color.	



A farmer-grower's load arriving at one of our warehouses

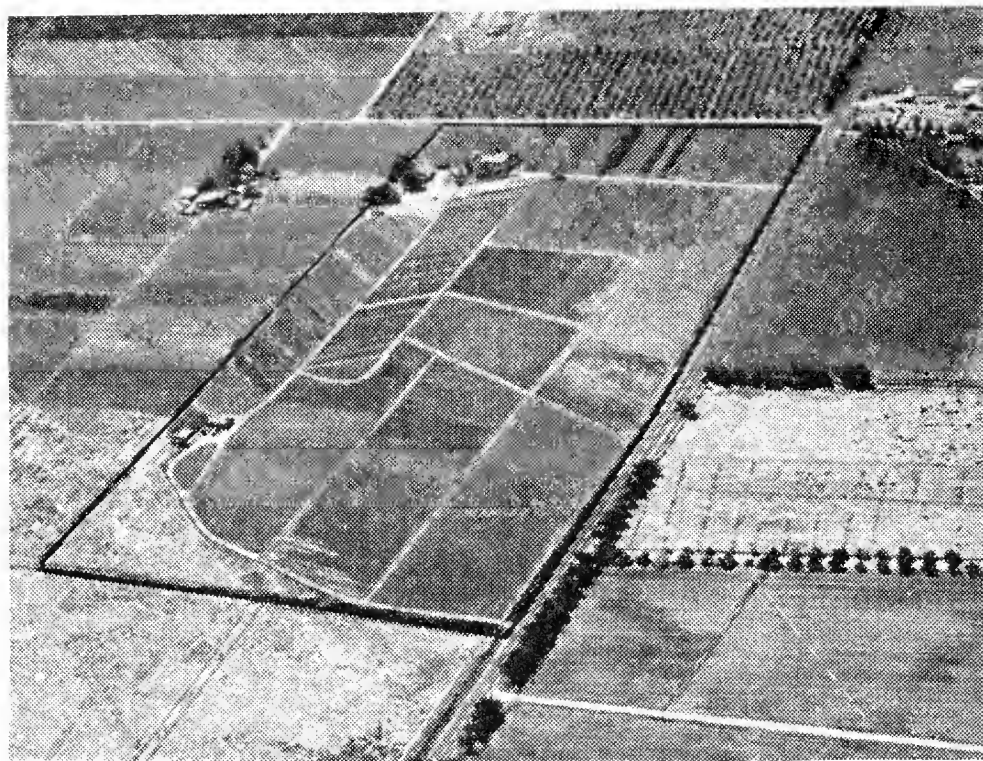
SQUASH

Squash has lent itself well to freezing, both color and taste being satisfactorily preserved. Orange-skinned varieties are preferred, as in canning, because minute pieces of skin left after separator treatment are not noticeable.



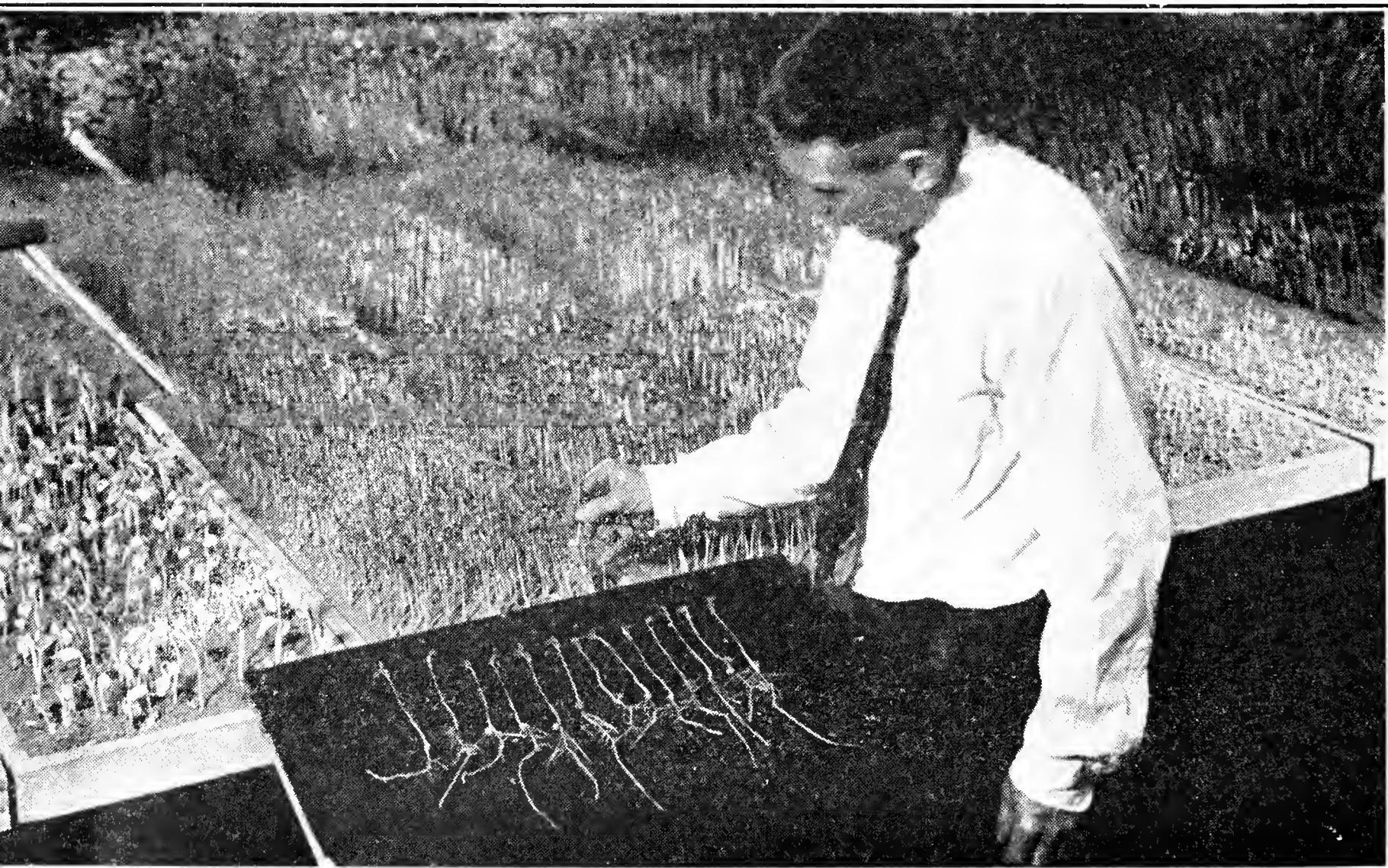
Golden Delicious Marrow. Has dry, sweet flesh

	Depth inches	Diameter inches	Days from planting to maturity
BOSTON MARROW	12	9	97
A very productive, late fall variety. Resembling Hubbard in size and shape, the fruits weigh 6 to 8 pounds. The deep orange skin is somewhat rough, and quite hard; flesh is yellow, thick, firm, fine grained, moist. Vine of trailing type.			
GOLDEN DELICIOUS MARROW	10 to 12	8	100
A highly desirable sort, on account of its extremely dry flesh. Vine of trailing type. Fruits top-shaped, weigh 7 pounds. Color bright reddish orange, with green tip at blossom end. Flesh thick, medium grained, golden orange, sweet and dry. Retains its fine qualities when frozen.			
GOLDEN HUBBARD	11	8	100
Fruits somewhat pointed at each end, weigh 8 to 10 pounds, moderately warted, orange-red, with faint cream colored stripes toward blossom end; flesh deep orange, dry, and of fine quality; gives a superior product.			
ZUCCHINI	10 to 14	5	60
Of the Italian marrow type, with large bushy vines. The immature fruits when 4" to 5" long and about 1½" in diameter are frozen after splitting, and removing the seeds. Color medium green, mottled and striped; flesh firm and delicately flavored.			



THE ASGROW BREEDING AND DEVELOPMENT PROGRAM

Listed on the inside page of the front cover are our Departments of Breeding where skilled plant-breeders carry on extensive and intensive work with three objectives: (1) the maintenance of Asgrow pedigreed parent stocks to prevent the otherwise inevitable reversion to earlier types of these highly developed strains, (2) the adaptation of these stocks to different growing conditions and the menace of disease and parasites, (3) the development of new and improved varieties. In all, upwards of 1000 acres are employed and the locations are those best adapted to secure purity of strain, vigor of growth and freedom from disease.



Germination tests in soil at one of the Asgrow laboratories

PLANTING TABLE

Species	Seed for 100 ft. row	Seed for one acre	† Inches between rows	§ Inches apart in row	‡ Planting depth, inches
Beans, Bush	1 lb.	60-75 lbs.	24-30	3-4	1½
Beans, Pole	½ lb.	30-35 lbs.	36-48	12	1½
Beet	2 ozs.	8-12 lbs.	14-24	3-4	½
Broccoli	¼ oz.	*4 ozs.	24-30	16-20	½
Cabbage	¼ oz.	*4 ozs.	24-30	16-20	½
Cantaloupe	½ oz.	3-4 lbs.	50-60	36-60	1
Carrot	1 oz.	4 lbs.	14-24	2-3	½
Cauliflower	¼ oz.	*4 ozs.	24-30	16-20	½
Celery	¼ oz.	4 ozs.	24-42	4-5	⅛
Corn, Sweet	8 ozs.	8-10 lbs.	30-42	9-12	1
Cucumber	1 oz.	3-4 lbs.	4-5 ft.	18-36	¾
Egg Plant	¼ oz.	5-6 ozs.	3-4 ft.	30-36	½
Endive	1 oz.	4-5 lbs.	18-24	8-10	¼
Kale	¼ oz.	4-5 lbs.	24-36	15-20	½
Kohl Rabi	½ oz.	4-5 lbs.	18-24	6	½
Lettuce	½ oz.	3 lbs.	16-24	10-14	¼
Muskmelon	½ oz.	3-4 lbs.	60-70	36-60	1
Mustard	½ oz.	4 lbs.	18-20	6-9	½
Okra	2 ozs.	8 lbs.	30-42	15	1
Onion	1 oz.	3-4 lbs.	15-30	3-4	¾
Parsley	½ oz.	4 lbs.	12-18	3-6	¼
Parsnip	½ oz.	4 lbs.	18-24	3-4	½
Peas	2 lbs.	90-180 lbs.	24-36	1-2	1
Pepper	¼ oz.	1 lb.	30	24-30	½
Pumpkin	2 ozs.	3-4 lbs.	8-10 ft.	5-6 ft.	1
Radish	1 oz.	10-12 lbs.	12-15	1-2	½
Rutabaga	1 oz.	2-3 lbs.	18-24	4-8	½
Spinach	2 ozs.	15-25 lbs.	10-24	5-6	¾
Squash, Bush	2 ozs.	6 lbs.	4-5 ft.	3 ft.	1
Squash, Vine	1 oz.	4 lbs.	6-8 ft.	5-6 ft.	1
Swiss Chard	1 oz.	6-8 lbs.	18-24	10-12	1
Tomato	¼ oz.	4 ozs.	3-4 ft.	3-4 ft.	½
Turnip	½ oz.	2-3 lbs.	12-24	3-7	¼
Watermelon	½ oz.	3-4 lbs.	8-10 ft.	8 ft.	¾

* When plants are raised in greenhouse or hotbed.

† Varies with method of cultivation, etc.

‡ For medium soils. A little more in sandy soils, a little less in heavy soils. Moisture is also a determining factor.

§ The figures refer to stand of plants, not rate of seeding.

PLANTS REQUIRED TO SET AN ACRE

Inches apart	Number of plants	Inches apart	Number of plants	Inches apart	Number of plants
12 x 8	174,000	24 x 2	130,000	36 x 3	58,000
12 x 12	43,500	24 x 18	15,500	36 x 12	14,500
18 x 3	116,000	24 x 24	11,000	36 x 48	3,500
18 x 12	29,000	30 x 6	35,000	48 x 60	2,000
18 x 18	19,000	30 x 12	17,500	60 x 60	1,700

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